

## ROCKY FLATS SITE REGULATORY CONTACT RECORD

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**Purpose:** Exploratory excavations to greater than 3 feet below grade generally between the former Interceptor Trench Pump House and Solar Ponds Plume Treatment System

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**Contact Record Approval Date:**  
May 20, 2008

**Site Contact(s) / Affiliation(s):**  
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**Regulatory Contact(s) / Affiliation(s):**  
Carl Spreng, CDPHE

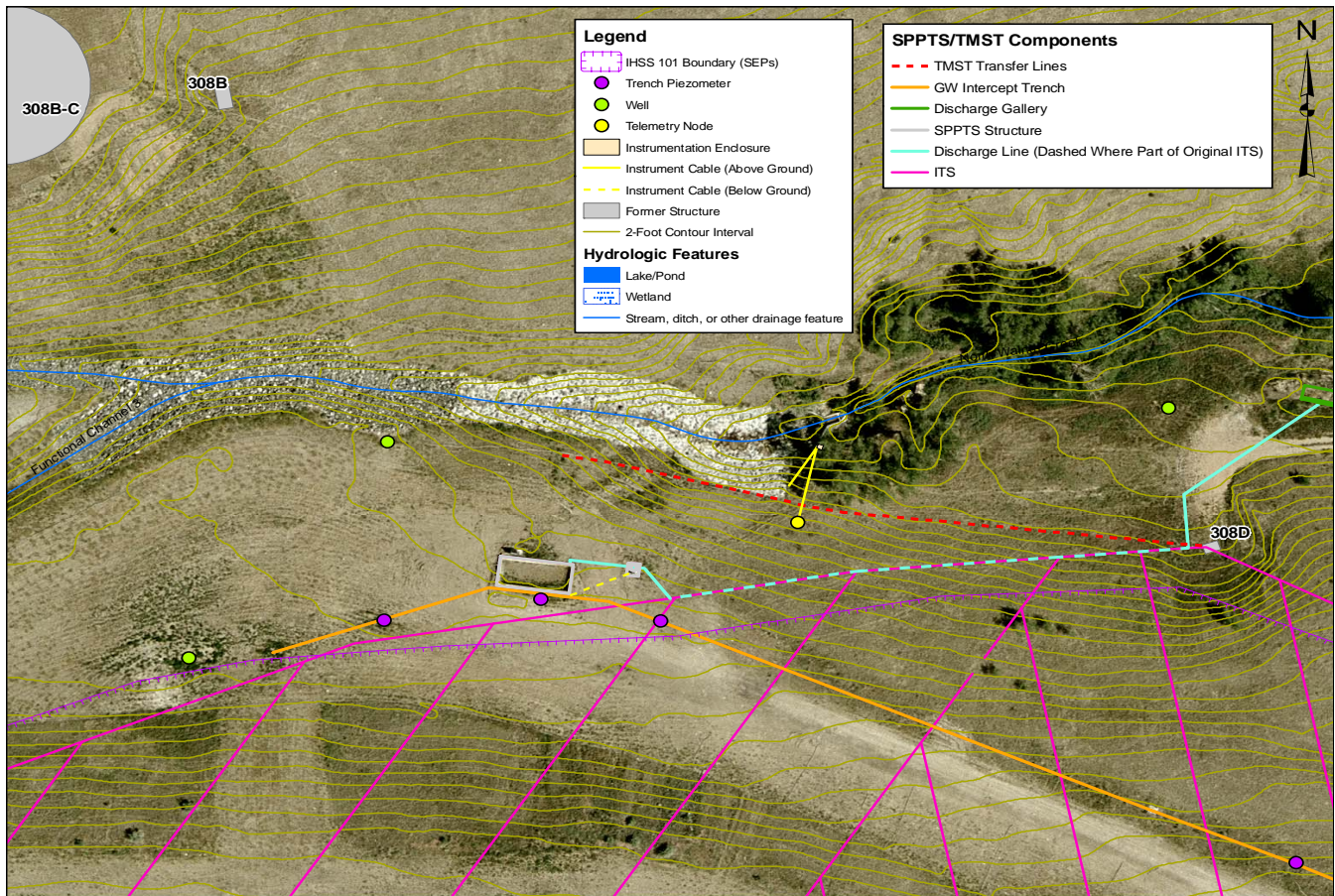
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**Discussion:** The Solar Ponds Plume Treatment System (SPPTS) will be modified in the coming months. Part of this modification will include installing a groundwater collection sump near the former Interceptor Trench Pump House (ITPH) to collect contaminated groundwater that currently mixes with the treatment system effluent and issues at the Solar Ponds Plume Discharge Gallery, and routing this collected water up to the SPPTS for treatment. This water will be pumped to the SPPTS via buried lines. The area between the ITPH and the SPPTS is sensitive habitat (Preble's meadow jumping mouse). Installing these lines will require excavating a trench from the sump up to the SPPTS and burying the lines in the trench, thereby disturbing the habitat.

Two parallel lines are present in the subsurface near the ITPH. These lines were located during the exploratory excavations in spring 2007 (see *Contact Record 2007-02*) and appear to consist of HDPE pipe (non-perforated). Their purpose prior to site closure was to transfer water from the ITPH to the Temporary Modular Storage Tanks (TMSTs) and subsequently transfer the water from the tanks back through the ITPH into the Protected Area and finally to the evaporators within B-374 for treatment. Portions of these lines nearest the TMSTs and FC-3 have been removed, but the portion nearest the ITPH, extending to near the SPPTS, remains.

Engineering drawings that were generated before closure depict these lines as double-walled and show them running from the ITPH to the vicinity of the SPPTS before turning more northerly toward the TMSTs. They may be buried closer to the base of the hill (i.e., nearer surface water monitoring station SW093 than the SPPTS itself). Figure 1 shows the approximate location of the TMST transfer lines in relation to other features in the area. Regardless of whether the nearest portion is closer to the SPPTS or SW093, if these lines are in serviceable condition, they should be considered for use in the upcoming SPPTS modifications. Using them to transfer water from the new collection sump to the SPPTS could significantly reduce how much habitat is disrupted: the most sensitive portion of the habitat along the valley bottom, from the general vicinity of SW093 to the new sump, would not be directly impacted by the construction activities.

Figure 1. Approximate Location of TMST Transfer Line



These lines will be investigated by using a backhoe or similar equipment and utility-locating equipment as follows:

1. Form a pothole at the ITPH to locate the two MST transfer lines.
2. Sever the lines and send a tape/sounder up the lines (to the west) to allow them to be located along their subsurface extent.
3. Temporarily mark the locations of the lines along the surface.
4. Form a pothole where locating equipment indicates the lines either turn northward or end, and expose the lines.
5. Backfill the potholes, mark the locations and depths of the lines, apply erosion controls and revegetate as appropriate, and demobilize.

The potholing excavation involves actions prohibited by the institutional controls (ICs) incorporated in the Rocky Flats Legacy Management Agreement (RFLMA). The excavation work will exceed the 3-foot-depth limit prohibited by ICs (RFLMA, Attachment 2, Table 4, Control 2) and thus requires pre-approved procedures.

The objective of IC 2 regarding excavations with a depth that exceeds 3 feet is to maintain the current depth to subsurface contamination or contaminated structures. This IC also results in achieving

compliance with the CDPHE risk management policy of ensuring that residual risks to the site user are at or below  $1 \times 10^{-6}$ . As discussed further, below, the proposed work achieves the risk management policy goal.

The excavation targets described above may be deeper than 3 feet below ground surface, and it is expected that the excavations will need to be deeper in order to allow personnel to perform the utility locates and pressure tests. The excavations are not expected to be deeper than approximately 5 feet below ground surface. However, if the lines are longer than the tape/sounder, an intermediate pothole may be required to allow these tools to be sent up the balance of their useful reach.

The best management practices in the *Erosion Control Plan for Rocky Flats Property Central Operable Unit, DOE-LM/1497-2007* (July 2007) will also be implemented to provide erosion controls for the excavated materials so that run-on and runoff will be minimized.

CDPHE has requested that the following information be included in contact records for soil excavation:

*1 - Provide information about any remaining subsurface structures in the vicinity so that the minimum cover assumption won't be violated (or state that there are none if that is the case)-*

The exploratory excavation is in the vicinity of the former ITPH, known as building 308D. The building was removed as documented in the *Type 1 Facility Closeout Report for Buildings 308B and 308D* (September 22, 2003). The closeout report indicates that utilities were disconnected and capped three feet below grade.

*2 - Provide information about any former IHSSs/PACs or other known soil or groundwater contamination in the vicinity (or state that there is no known contamination)-*

The closeout report indicates that there is no contamination present in the remaining soils and that this area was not an IHSS. The *RI/FS Nature and Extent of Soil Contamination* figures do not indicate soil contamination in this area. Groundwater in the vicinity is impacted by the Solar Ponds Plume. Any groundwater that is encountered will be collected from the excavation, if necessary, to conduct the investigative work. The groundwater will be pumped from the excavation to the surface generally south of the excavation area to allow this water to seep back into the ground.

*3 - Resurvey any new surface established in subsurface soil, unless sufficient existing data is available to characterize the surface (or state that the excavated soil will be replaced and the original contours restored)*

All excavated soils will be returned to the excavation, and original contours will be restored.

**Closeout of Contact Record:** This contact record will be closed when the excavations are backfilled and when revegetation and erosion controls are completed.

**Resolution:** Carl Spreng, CDPHE, approved the potholing work as described in this contact record.

**Contact Record Prepared by:** John Boylan and Rick DiSalvo

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**Distribution:**

Carl Spreng, CDPHE  
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Rocky Flats Contact Record File